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January 30, 2002

Magalie Roman Salas
Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: CC94-102, CC95-116, CC99-200, WT01-184, ex parte communication

Dear Ms. Salas:

Pursuant to Section 1.1206 of the Rules, the National Emergency Number Association ("NENA"), the Association of Public-Safety Communications Officials-International, Inc. ("APCO") and the National Association of State Nine One One Administrators ("NASNA") (collectively, "Public Safety Organizations") submit the appended discussion of challenges arising from the near-simultaneous implementation of wireless local number portability and number pooling, on the one hand, and wireless enhanced 9-1-1 Phase II service on the other hand.

Please direct any questions to the undersigned.

Sincerely,

James R. Hobson
Counsel for NENA

cc: Kris Monteith, David Furth (FCC WTB); Bob Gurss, Counsel for APCO

IMPLEMENTING WIRELESS LNP/POOLING
TOGETHER WITH PHASE II E9-1-1

The Commission has determined that certain wireless carriers in the 100 largest MSAs must, by November 24, 2002, be capable of local number portability ("LNP") as described in Part 52C of the Rules and of participation in number pooling as explained in the recent Third Report and Order and Second Order on Reconsideration in CC Dockets 96-98 and 99-200, FCC 01-362, released December 28, 2001.

Nearly six months ago, the FCC called for comment on a petition for forbearance from the number portability requirement submitted by Verizon Wireless. Public Notice, DA 01-1872, August 7, 2001. The Public Safety Organizations did not comment in this proceeding (WT 01-184) and do not intend these recommendations to address the merits of the Verizon petition or of the rules as currently written. Rather, the statement assumes that the wireless LNP regulations in Part 52C will be implemented and that wireless number pooling (not invoked by the Verizon petition) will proceed on schedule. Our aim is to make sure that 9-1-1 service is not degraded by either of these developments.[1]

Sections 52.23(a) and 52.31(a) of the Rules appear to favor the maintenance of reliable 9-1-1 service during wireless LNP implementation. The latter regulation states:

> By November 24, 2002, all covered CMRS providers must provide a long-term database method for number portability, including the ability to support roaming, in the MSAs identified in the Appendix to this part in compliance with the performance criteria set forth in Section 52.23(a) of this part . . .

Among the performance criteria in Section 52.23(a) are:

- "Supports network services, features and capabilities existing at the time number portability is implemented, including but not limited to emergency services . . ."
- "Does not result in unreasonable degradation in service quality or network reliability when implemented;" and
- "Does not result in any degradation in service quality or network reliability when customers switch carriers."

[1] On the NENA web site, please see wireline Recommended Data Standard NENA 02-011, pages 31-35, at: http://www.nena9-1-1.org/9-1-1TechStandards/nena_recommended_standards.htm. A list of participants in the NENA Wireless Number Portability Working Group is Attachment 1 hereto. As the Commission has recognized (DA 01-1872): "Pooling and LNP are linked because they involve substantially similar technical modifications" to terminate a call on a number no longer necessarily associated with a single carrier.

Enforcement of these regulations would seem to mean that:

1. A wireless carrier should not be permitted to accept a customer switching from a wireline carrier, and retaining the wire telephone number, unless the wireless carrier is capable of delivering to the customer Phase II wireless E9-1-1 service.[2]

2. A wireless carrier should be able to complete a call originating on its system and destined for a wireline customer which has ported its number from one local wireline service to another.

3. A wireless carrier should not be permitted to accept a customer from another wireless carrier, and retaining the same wireless telephone number, unless its E9-1-1 service matches or surpasses that of the losing carrier.

4. A wireless carrier should be able to complete a call originating on its system and destined for a customer which has ported a wireless telephone number from one wireless provider to another, or which has ported a telephone number from a wireless carrier to a wireline carrier.

Testing. Wireless number portability testing by the industry, as per the national wireless testing subcommittee (WTSC), should include FCC oversight to ensure that all wireless carriers involved nationwide (both network and roaming) are taking part and have test results showing no degradation/interruption in the national wireless networks, particularly as this applies to 9-1-1 and emergency services' access.

The FCC should make it clear to the wireless industry leadership that it is essential that each wireless carrier have substantial proof, prior to wireless number portability/pooling implementation, that there will be no loss or diminution of 9-1-1 service and access to emergency services/public safety. This would include all wireless carriers nationwide that are either involved in wireless number portability/pooling or the roaming of customers who have either ported or pooled phone numbers.

Currently, there is no national requirement for the appropriate 9-1-1 testing (as designated by the WTSC with input from NENA and others), for any wireless carriers involved in number portability/pooling implementation (which includes not only those in the top 100 MSAs but also any which support roaming of customers from those top 100 MSAs). At least one state has such a requirement (Illinois Administrative Code, part 728), which mandates wireless carrier 9-1-1 testing prior to implementation of wireless number portability and pooling.

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[2] The same preclusion should apply to a gaining wireline carrier, in the unlikely event that its 9-1-1 service were inferior to that provided by the losing wireless provider. Although Section 52.31(a), through Section 52.23(a)(5), appears to forbid "any degradation," the Public Safety Organizations are prepared to recognize Phase II compliance as sufficient even though it may not match the location precision available to the customer as a wireline subscriber.

Technical Issues. Most of the key issues center around the wireless industry's separation of the mobile identification number ("MIN") from the mobile directory number ("MDN") as a solution for implementing wireless number portability and pooling.

Wireless 9-1-1 phases I and II require delivery of the customer's callback number. In an area where either has been implemented, generally, wireless 9-1-1 calls are passed through the network without a registration check. Since the MIN and MDN usually are the same and are obtained from the customer's phone by the network, this complies with the rule that non-service initialized ("NSI") 9-1-1 calls be forwarded, Section 20.18(b).[3]

The MIN/MDN separation requires various changes industry-wide to support correct callback number delivery for 9-1-1 calls.[4] The various categories requiring the changes include:

(1) network of a number portability/pooling capable wireless carrier within areas where they are being implemented,

(2) network of a wireless carrier within areas where number portability/pooling are not being implemented (to support roaming),

(3) phones turned on to call 9-1-1, but not yet registered, due to length of registration time for some technologies (up to 20 seconds),

(4) 9-1-1 calls on competitor's network complying with "strongest signal" order and/or handset programming, and

(5) NSI phones delivering MINs when MIN may be the MDN of another customer.

Other key issues include:

(a) 9-1-1 call routing and address databases potentially sending wrong information to PSAPs, such as wireline address data for a wireless call or wireless location data for a wireline call,

(b) 9-1-1 call routing and address databases potentially deleting or temporarily deleting wireline address records because of database phone number conflicts, and

(c) necessary opening of wireless codes (NPA-NXXs), initially throughout the top 100 MSAs, for 9-1-1 call routing and address databases because of potential wireline porting and

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[3] GSM networks are the exception since they already have MIN/MDN separation. If the phone has been registered on the network at the time of the 9-1-1 call, the MDN is sent, while if not yet registered or NSI, it is not sent.

[4] An excerpt of the September 2000 report to the NANC from the Wireless Number Portability Subcommittee, explaining MIN/MDN separation, appears as Attachment 2 herewith.

pooling within them so as to set up the needed wireline default routing and to be prepared for expeditious inserting of wireline 9-1-1 records when applicable.

The resolution of these and other issues requires the active participation of wireless carriers, 9-1-1 professionals, wireline carriers, and 9-1-1 service and database providers, along with their third party vendors.

Conclusion. We urge the FCC to enforce its wireline to wireless number portability non-degradation rules, to require that the wireless carrier deliver 9-1-1 phase II data in the serving area of the customer. If those rules are deemed not to apply, then a regulation should be fashioned to accomplish this link between wireless LNP and wireless E9-1-1 readiness.

We encourage the FCC to be more active in wireless number portability/pooling testing by the wireless carriers, to include requiring that each carrier has documentation showing that all the appropriate 9-1-1 tests have been completed and passed.

We seek the continued involvement of the FCC in the needed national efforts to resolve the various key issues prior to completion nationwide of inter-carrier testing (August 2002), so that implementation can proceed as of 11/24/02 without any serious degradation of 9-1-1 service to wireless customers who are either ported between wireless carriers or have phone numbers involved in number pooling.

When wireline industry number portability and pooling were implemented, a number of key changes were made regarding 9-1-1 processes, to ensure that callers' 9-1-1 service was not interrupted or degraded due to these changes aimed at promoting competition and number conservation. The same needs to be done for wireless participation in these changes. Due to the difference in implementation – effectively nationwide for wireless, rather than a limited number of metropolitan areas at a time, as in wireline -- and the technique of MIN/MDN separation for such implementation, the key issues which must be resolved are more numerous, complex and on a shorter time frame for resolution.

Any negative impact could affect several million wireless 9-1-1 customers in the first year of wireless number portability/pooling implementation. It is important that we all work together to be sure that we minimize, if not eliminate, any negative impacts on 9-1-1 service to customers involved in the expanded competition and number conservation methods being implemented.

We believe that a subject matter experts' summit meeting in the very near future can help us move forward to resolve many key issues within existing industry timelines and are taking steps to bring that about. This includes seeking endorsement and active participation by the appropriate lead industry groups and other parties.

ATTACHMENT 1

Among the 91 participants on the NENA WNP WG (wireless number portability working group) distribution list are representatives of the following companies/organizations. The list illustrates a level of effort and does not imply support for the foregoing comments of NENA, APCO and NASNA.

Alltel
AT&T Wireless
Bell Canada
Bell South
Brevard County FL E9-1-1
Cingular
CTIA
Dobson Cellular
FCC
HBF
InterAct
Intrado
Leap Wireless
Loves Park IL 9-1-1
Minnesota Statewide 9-1-1 Program
NENA
Neustar
Nextel
PMCS Inc
PrimeCo
Qwest
Rural Cellular Corp
SBC
SignalSoft
Sprint
Sprint PCS
Tarrant County TX 9-1-1 District
Telcordia
Telecom Software
Telecorp PCS
TSI
Verizon
Verizon Wireless
Voicestream
Williams Communications
Worldcom Wireless
XYPoint

ATTACHMENT 2

North American Numbering Council

Wireless Number Portability Subcommittee

Report
on

WIRELESS NUMBER PORTABILITY
Technical, Operational and Implementation Requirements

Phase II
September 29, 2000

* * *

3.1 Major Impacts

The following sub-sections discuss three LNP topics that cause the greatest impact to wireless Service Providers (SPs): Mobile Identification Number (MIN)/Mobile Directory Number (MDN) separation, Inter-Carrier Communications Process (ICP), and the Service Order Administration (SOA). Separation of the MIN and MDN was chosen as the method to retain the ability to identify the home SP of a wireless customer while still enabling the MDN to be portable. The MIN/MDN separation is discussed in *section 3.1.1 MIN/MDN Separation.* Two new communications processes are required for LNP. Communication between the Old Service Provider (OSP) and New Service Provider (NSP) is required to validate customer information and the port request. This is referred to as the ICP for wireless to wireless ports. This is discussed in *section 3.1.2 SP to SP Communications*. Communication with the regional NPAC is required to actually process the port activation. This is covered in *section 3.1.3 SOA.*

3.1.1 MIN/MDN Separation

The MIN is the identifier that was first used by Advanced Mobile Phone Service (AMPS) cellular systems, and since adopted by most Cellular and PCS standards that contain an "AMPS" compatibility mode (e.g. IS-91 "AMPS", IS-88 "NAMPS", IS-54 and IS-136 "D-AMPS" and IS-95 "CDMA"). [5]

[5] MIN Block Identifier Assignment Guidelines and Procedures, Draft version 1.8, Feb., 1999

Prior to the separation of MIN and MDN, AMPS, CDMA, TDMA SPs performed registration, call processing, provisioning, customer care and billing based upon a single number---the MIN. Traditionally, the MIN has also been used by SPs within the North American Numbering Plan (NANP) serving area as the 10-digit MDN.

In an LNP environment, mobile subscribers will require two types of numbers: a MDN and a MSID. The MDN will be the dialable NANP telephone number and will be portable in a SP portability environment. The MSID will be non-portable and non-dialable. The MSID can be formatted as a 15 digit International Mobile Station Identifier (IMSI) or a 10-digit MIN.

In a pre-LNP environment, existing AMPS, TDMA and CDMA subscribers will most likely have the same number for both the MIN and MDN. When a subscriber ports, the MDN and MIN become separate and distinct. The ported subscriber's MDN will remain unchanged and port with the subscriber. The ported subscriber will surrender the MIN to the donor network and receive a new MSID (MIN) from the recipient network. The donor network can reuse the relinquished MIN for another subscriber. It is probable that the same number may be used for a MDN in one network and a MIN in another network.